**Creepy Critters**

**Questions to Think About**

If someone from China sends you a letter, how does the postal system know where you are? How are supermarkets organised? If you go to a new supermarket, how would you know where to find a specific brand of cheese?

Imagine that in the year 2525, a solar system in a new galaxy is discovered. Many similarities between our solar system and this new one are found, including a planet that resembles Earth. A space probe lands on this planet and sends a variety of different living organisms back to Earth through a molecular transport beam. The macroscopic and microscopic structures of each creature and described. The scientists studying these organisms realise they need to develop a classification scheme to help them compare the life forms to organisms on Earth. Your role is to study the illustrations of the creatures and develop a possible classification scheme based on the information provided for each organism. You must be able to justify and defend the method that you use.

**Safety Notes**

* Exercise care when using scissors. Point them away from the body when cutting.
* Do not point the scissors at other individuals

**What to Do**

1. Collect a set of organism cards from your teacher and cut them up if necessary. Please take care with these cards – do not write or draw on them, fold or scrunch them up. At the end of the activity you will have to return them in the same condition that you received them. Please do not lose the safety pins or rubber bands keeping them together.
2. Lay the cards out on your table. Study them carefully. Note the similarities and differences of the creatures.
3. Construct a table in your book to help you organise your observations. What features could be used to classify these organisms and what varieties of each feature can be found?

*For example:*

|  |  |
| --- | --- |
| **Feature** | **Varieties** |
| Number of eyes | One eye, two eye, three eyes |

1. Study the cards again and place them in groups based on the similarities and differences observed. Once the group is satisfied with the results, construct another table listing the characteristics common to each group.

*For example:*

|  |  |
| --- | --- |
| **Group** | **Common Features** |
|  |  |

1. Get a set of Newly Discovered Organism cards from your teacher. Select one of these organism and suppose it was just discovered. Answer the following questions in your book:
   1. Where does it fit in your system of organisation?
   2. Will you have to create a new group or can you find another way to fit it into an existing group?
2. Present your classification scheme to the class. Make sure you can justify your methods. How does your classification scheme compare to those created by other groups.
3. Check that you still have all of your cards. There should be 20 organism cards and 4 newly discovered organisms. Put them back in their correct groups and return them to your teacher.
4. Turn over the page. Read the ‘Did You Know Section’.
5. Answer the questions in your book.

**Did You Know?**

* That not all animals have the same characteristics?
* What the standard classification scheme for organisms is?
* How animals are separated into different groups?
* Why scientists classify organisms?
* That the basic food groups are another form of classification?

**Questions**

1. How are organisms classified?
2. What are the benefits of classifying organisms?
3. The features you used to classify the creepy critters were physical features. How else could scientists classify organisms?
4. Which types of features are best to use when classifying? Can you think of any that should **not** be used when classifying?
5. Where would you being if you had to classify an unknown plant?
6. If we were to classify the class and we divided them into groups of ‘tall’ and ‘short’, what is wrong with this idea?

**Possible Answers**

1. By analysing their similarities and differences. Putting them into groups based on their similarities.
2. Easier to deal with smaller groups (e.g. can talk about the entire cat family rather than listing them all)

If you don’t know what a particular species is you can look at how it is classified and see what it is related to

If new living things are discovered, easy to put them into the correct group based on their features

Can provide you with information – e.g. if someone says a particular animal is a mammal, you can make assumptions about some of its features

1. What they eat, their behaviour, their habitat....
2. Best to use physical features as they are easily observable

Shouldn’t use features that may change such as size, colour

Behaviour is hard as it may be difficult to observe or the organism might be dead

1. Various answers
2. Is subjective – some people might say I am tall and others may say I’m short.

**Organism Cards**

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**Newly Discovered Organism Cards**

  

